



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. FAA-2022-0145; Project Identifier MCAI-2021-00522-R;
Amendment 39-22027; AD 2022-09-07]**

RIN 2120-AA64

**Airworthiness Directives; Bell Textron Canada Limited (Type Certificate
Previously Held by Bell Helicopter Textron Canada Limited) Helicopters**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2019-11-05 for certain Bell Helicopter Textron Canada Limited (now Bell Textron Canada Limited) Model 429 helicopters. AD 2019-11-05 required inspecting the tail rotor (TR) pitch link assemblies, and replacing certain pitch link bearings. This AD was prompted by a report of a worn pitch link, and the FAA's determination that all TR pitch link assemblies are affected by the unsafe condition. This AD continues to require the actions specified in AD 2019-11-05, and revises the applicability and requires inspections of certain other TR pitch link assemblies. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4, Canada; phone: 1-450-437-2862 or 1-800-363-8023; fax: 1-450-433-0272; email: productsupport@bellflight.com; or at <https://www.bellflight.com/support/contact-support>. You may view this service information at the FAA, Office of the Regional

Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0145.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0145; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the Transport Canada Civil Aviation (TCCA) AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2019-11-05, Amendment 39-19651 (84 FR 26546, June 7, 2019) (AD 2019-11-05). AD 2019-11-05 applied to certain Bell Helicopter Textron Canada Limited Model 429 helicopters. The NPRM published in the Federal Register on February 23, 2022 (87 FR 10107). In the NPRM, the FAA proposed to continue to require inspecting the TR pitch link assemblies, and replacing certain pitch link bearings, as well as proposed to revise the applicability and require inspections of certain other TR pitch link assemblies. The NPRM was prompted by TCCA AD CF-2015-16R3, dated April 30, 2021 (TCCA AD CF-2015-16R3), issued by TCCA, which is the aviation authority for Canada, to correct an unsafe condition for certain Bell Helicopter Textron Canada Limited Model 429 helicopters. TCCA AD CF-2015-16R3 retains the requirements of TCCA AD CF-2015-16R2, dated April 3, 2017, and revises the

applicability by specifying certain helicopter serial numbers to account for new production helicopters, which have already incorporated the new pitch link assemblies and corrected the unsafe condition. TCCA AD CF-2015-16R3 also specifies that installing a new pitch link assembly terminates the repetitive inspections. This condition, if not addressed, could result in pitch link failure and subsequent loss of control of the helicopter.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with Canada, TCCA, its technical representative, has notified the FAA of the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. Except for minor editorial changes, this AD is adopted as proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Bell Alert Service Bulletin No. 429-15-16, Revision C, dated October 16, 2020. This service information contains procedures for inspecting the TR pitch link assemblies, replacing certain pitch link bearings, and replacement of the pitch link assemblies. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 120 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained inspections from AD 2019-11-05	2 work-hours X \$85 per hour = \$170 per inspection cycle	\$0	\$170 per inspection cycle	\$20,400 per inspection cycle
New inspections	2 work-hours X \$85 per hour = \$170 per inspection cycle	\$0	\$170 per inspection cycle	\$20,400 per inspection cycle

The FAA estimates the following costs to do any necessary on-condition replacements that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

Estimated costs of on-condition actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Bearing replacements	3 work-hours X \$85 per hour = \$255	\$3,340	\$3,343	\$401,160

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive (AD) 2019-11-05, Amendment 39-19651 (84 FR 26546, June 7, 2019); and
- b. Adding the following new AD:

2022-09-07 Bell Textron Canada Limited (Type Certificate Previously Held by Bell Helicopter Textron Canada Limited): Amendment 39-22027; Docket No. FAA-2022-0145; Project Identifier MCAI-2021-00522-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

(1) This AD replaces AD 2019-11-05, Amendment 39-19651 (84 FR 26546, June 7, 2019) (AD 2019-11-05).

(2) This AD affects AD 2020-17-10, Amendment 39-21215 (85 FR 49941, August 17, 2020) (AD 2020-17-10).

(c) Applicability

This AD applies to Bell Textron Canada Limited (type certificate previously held by Bell Helicopter Textron Canada Limited) Model 429 helicopters, certificated in any category, serial numbers 57001 through 57401 inclusive.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6720, Tail Rotor Control System.

(e) Unsafe Condition

This AD was prompted by a report of a worn pitch link. The FAA is issuing this AD to address a worn pitch link, which if not corrected, could result in pitch link failure and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Requirements

(1) For pitch link assembly part number (P/N) 429-012-112-101, 429-012-112-103, 429-012-112-101FM, and 429-012-112-103FM: Within 50 hours time-in-service (TIS) after July 12, 2019 (the effective date of AD 2019-11-05) and thereafter at intervals not to exceed 50 hours TIS:

(i) Perform a dimensional inspection of each inboard and outboard pitch link assembly for axial and radial bearing play. With a 10X or higher power magnifying glass, inspect the bearing liner for a crack, deterioration of the liner, and extrusion of the liner from the plane. If there is axial or radial play that exceeds allowable limits, or if there is a

crack, deterioration of the liner, or extrusion of the liner, before further flight, replace the bearing.

(ii) Inspect the pitch link assembly sealant for pin holes and voids and to determine if the sealant thickness is 0.025 inch (0.64 mm) or less, extends over the roll staked lip by 0.030 inch (0.76 mm) or more, and is clear of the bearing ball. If there is a pin hole or void, or if the sealant exceeds 0.026 inch (0.66 mm), does not extend over the roll staked lip by 0.030 inch (0.76 mm) or more, or is not clear of the bearing ball, before further flight, replace the bearing.

(2) For pitch link assembly P/N 429-012-112-101, 429-012-112-103, 429-012-112-101FM, and 429-012-112-103FM, within 200 hours TIS following the initial inspection required by paragraph (g)(1) of this AD, or if the hours TIS of a pitch link assembly exceed 250 hours TIS or are unknown, at the next 50-hour-TIS inspection required by paragraph (g)(1) of this AD:

(i) Replace each bearing P/N 429-312-107-103 with a date of manufacture before January 13, 2015, with a bearing P/N 429-312-107-103 that was manufactured on or after January 13, 2015.

(ii) Using a white permanent fine point marker or equivalent, re-identify the pitch link assembly:

(A) Re-identify P/N 429-012-112-101 and 429-012-112-101FM as 429-012-112-111FM.

(B) Re-identify P/N 429-012-112-103 and 429-012-112-103FM as 429-012-112-113FM.

(iii) Apply a coating of DEVCON 2-TON (C-298) or equivalent over the new P/N.

(h) New Requirements

For pitch link assemblies other than P/N 429-012-112-101, 429-012-112-103, 429-012-112-101FM, and 429-012-112-103FM: Within 50 hours TIS after the effective date of this AD and thereafter at intervals not to exceed 50 hours TIS:

(1) Perform a dimensional inspection of each inboard and outboard pitch link assembly for axial and radial bearing play. With a 10X or higher power magnifying glass,

inspect the bearing liner for a crack, deterioration of the liner, and extrusion of the liner from the plane. If there is axial or radial play that exceeds allowable limits, or if there is a crack, deterioration of the liner, or extrusion of the liner, before further flight, replace the bearing.

(2) Inspect the pitch link assembly sealant for pin holes and voids and to determine if the sealant thickness is 0.025 inch (0.64 mm) or less, extends over the roll staked lip by 0.030 inch (0.76 mm) or more, and is clear of the bearing ball. If there is a pin hole or void, or if the sealant exceeds 0.026 inch (0.66 mm), does not extend over the roll staked lip by 0.030 inch (0.76 mm) or more, or is not clear of the bearing ball, before further flight, replace the bearing.

(i) Terminating Action for Certain Actions in AD 2020-17-10

Accomplishing the initial inspection required by paragraph (g)(1) or (h) of this AD constitutes terminating action for the inspections required by paragraph (f)(2) of AD 2020-17-10 for that pitch link assembly only.

(j) Optional Terminating Action

The repetitive inspections required by paragraph (h) of this AD are no longer required for helicopters that incorporate pitch link assemblies, P/N 429-012-212-105 or 429-012-212-107, in accordance with Part III of the Accomplishment Instructions of Bell Alert Service Bulletin No. 429-15-16, Revision C, dated October 16, 2020.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Related Information

(1) For more information about this AD, contact Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: hal.jensen@faa.gov.

(2) The subject of this AD is addressed in Transport Canada Civil Aviation AD CF-2015-16R3, dated April 30, 2021. You may view the Transport Canada AD at <https://www.regulations.gov> in Docket No. FAA-2022-0145.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Bell Alert Service Bulletin No. 429-15-16, Revision C, dated October 16, 2020.

(ii) [Reserved]

(3) For service information identified in this AD, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4, Canada; phone: 1-450-437-2862 or 1-800-363-8023; fax: 1-450-433-0272; email: productsupport@bellflight.com; or at <https://www.bellflight.com/support/contact-support>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on April 15, 2022.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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